

Par. (2). Pub. L. 114-329, §105(c)(3), substituted “networking and information technology and” for “high-performance computing and” and “networking and information technology” for “high-performance computing network”.

1998—Pub. L. 105-305, §3(b)(1), substituted “Purposes” for “Purpose” as section catchline.

Pub. L. 105-305, §3(b)(2), substituted “purposes of this chapter are” for “purpose of this chapter is” in introductory provisions.

Par. (1)(A). Pub. L. 105-305, §3(b)(3), redesignated subpar. (B) as (A) and struck out former subpar. (A) which read as follows: “establish a high-capacity and high-speed National Research and Education Network;”.

Par. (1)(B). Pub. L. 105-305, §3(b)(3), (4), redesignated subpar. (C) as (B) and substituted “Internet” for “Network”. Former subpar. (B) redesignated (A).

Par. (1)(C) to (I). Pub. L. 105-305, §3(b)(3), (5), redesignated subpars. (D) to (I) as (C) to (H), respectively, and struck out “and” at end of par. (H).

Par. (2). Pub. L. 105-305, §3(b)(6), substituted “network research and development programs;” for “efforts.”

Pars. (3), (4). Pub. L. 105-305, §3(b)(7), added pars. (3) and (4).

§ 5503. Definitions

As used in this chapter, the term—

(1) “cyber-physical systems” means physical or engineered systems whose networking and information technology functions and physical elements are deeply integrated and are actively connected to the physical world through sensors, actuators, or other means to enable safe and effective, real-time performance in safety-critical and other applications;

(2) “Director” means the Director of the Office of Science and Technology Policy;

(3) “Grand Challenge” means a fundamental problem in science or engineering, with broad economic and scientific impact, whose solution will require the application of networking and information technology resources and multidisciplinary teams of researchers;

(4) “high-end computing” means the most advanced and capable computing systems, including their hardware, storage, networking and software, encompassing both massive computational capability and large-scale data analytics to solve computational problems of national importance that are beyond the capability of small- to medium-scale systems, including computing formerly known as high-performance computing;

(5) “Internet” means the international computer network of both Federal and non-Federal interoperable data networks;

(6) “networking and information technology” means high-end computing, communications, and information technologies, high-capacity and high-speed networks, special purpose and experimental systems, high-end computing systems software and applications software, and the management of large data sets;

(7) “participating agency” means an agency described in section 5511(a)(3)(C) of this title;

(8) “Program” means the Networking and Information Technology Research and Development Program described in section 5511 of this title; and

(9) “Program Component Areas” means the major subject areas under which related individual projects and activities carried out under the Program are grouped.

(Pub. L. 102-194, §4, Dec. 9, 1991, 105 Stat. 1595; Pub. L. 105-305, §7(b), Oct. 28, 1998, 112 Stat. 2924; Pub. L. 110-69, title VII, §7024(a)(2), Aug. 9, 2007, 121 Stat. 689; Pub. L. 114-329, title I, §105(d), Jan. 6, 2017, 130 Stat. 2977.)

AMENDMENTS

2017—Pars. (1), (2). Pub. L. 114-329, §105(d)(2), (3), added par. (1) and redesignated former par. (1) as (2). Former par. (2) redesignated (3).

Par. (3). Pub. L. 114-329, §105(d)(1), (2), (4), redesignated par. (2) as (3), substituted “networking and information technology” for “high-performance computing”, and struck out former par. (3) which read as follows: “‘high-performance computing’ means advanced computing, communications, and information technologies, including supercomputer systems, high-capacity and high-speed networks, special purpose and experimental systems, applications and systems software, and the management of large data sets;”.

Par. (4). Pub. L. 114-329, §105(d)(5), added par. (4). Former par. (4) redesignated (5).

Par. (5). Pub. L. 114-329, §105(d)(1), (2), redesignated par. (4) as (5) and struck out former par. (5) which read as follows: “‘Network’ means a computer network referred to as the National Research and Education Network established under section 5512 of this title;”.

Pars. (6), (7). Pub. L. 114-329, §105(d)(6), added pars. (6) and (7). Former pars. (6) and (7) redesignated (8) and (9), respectively.

Par. (8). Pub. L. 114-329, §105(d)(2), (7), redesignated par. (6) as (8) and substituted “Networking and Information Technology Research and Development Program” for “National High-Performance Computing Program”.

Par. (9). Pub. L. 114-329, §105(d)(2), redesignated par. (7) as (9).

2007—Par. (2). Pub. L. 110-69, §7024(a)(2)(A), inserted “and multidisciplinary teams of researchers” after “high-performance computing resources”.

Par. (3). Pub. L. 110-69, §7024(a)(2)(B), struck out “scientific workstations,” after “technologies, including” and “(including vector supercomputers and large scale parallel systems)” after “supercomputer systems”, substituted “applications” for “and applications”, and inserted “, and the management of large data sets” after “systems software”.

Par. (4). Pub. L. 110-69, §7024(a)(2)(C), struck out “packet switched” before “data networks”.

Par. (7). Pub. L. 110-69, §7024(a)(2)(D)–(F), added par. (7).

1998—Pars. (4) to (6). Pub. L. 105-305 added par. (4) and redesignated former pars. (4) and (5) as (5) and (6), respectively.

SUBCHAPTER I—NETWORKING AND INFORMATION TECHNOLOGY RESEARCH AND DEVELOPMENT

CODIFICATION

Pub. L. 114-329, title I, §105(e), Jan. 6, 2017, 130 Stat. 2978, substituted “NETWORKING AND INFORMATION TECHNOLOGY” for “HIGH-PERFORMANCE COMPUTING” in subchapter heading.

§ 5511. Networking and Information Technology Research and Development Program

(a) Networking and Information Technology research and development

(1) The President shall implement a Networking and Information Technology Research and Development Program, which shall—

(A) provide for long-term basic and applied research on networking and information technology;

(B) provide for research and development on, and demonstration of, technologies to advance

the capacity and capabilities of high-end computing and networking systems, and related software;

(C) provide for sustained access by the research community throughout the United States to high-end computing, distributed, and networking systems that are among the most advanced in the world in terms of performance in solving scientific and engineering problems, including provision for technical support for users of such systems;

(D) provide for efforts to increase software security and reliability;

(E) provide for high-performance networks, including experimental testbed networks, to enable research and development on, and demonstration of, advanced applications enabled by such networks;

(F) provide for computational science and engineering research on mathematical modeling and algorithms for applications in all fields of science and engineering;

(G) provide for the technical support of, and research and development on, high-end computing systems and software required to address Grand Challenges;

(H) provide support and guidance for educating and training additional undergraduate and graduate students in software engineering, computer science, computer and network security, applied mathematics, library and information science, and computational science;

(I) provide for improving the security, reliability, and resilience of computing and networking systems, including Federal systems, including providing for research required to establish security standards and practices for these systems;

(J) provide for increased understanding of the scientific principles of cyber-physical systems and improve the methods available for the design, development, and operation of cyber-physical systems that are characterized by high reliability, safety, and security;

(K) provide for research and development on human-computer interactions, visualization, and big data;

(L) provide for research and development on the enhancement of cybersecurity, including the human facets of cyber threats and secure cyber systems;

(M) provide for the understanding of the science, engineering, policy, and privacy protection related to networking and information technology;

(N) provide for the transition of high-end computing hardware, system software, development tools, and applications into development and operations; and

(O) foster public-private collaboration among government, industry research laboratories, academia, and nonprofit organizations to maximize research and development efforts and the benefits of networking and information technology, including high-end computing.

(2) The Director shall—

(A) establish the goals and priorities for Federal networking and information technology research, development, education, and other activities;

(B) establish Program Component Areas that implement the goals established under subparagraph (A), and identify the Grand Challenges that the Program should address;

(C) provide for interagency coordination of Federal networking and information technology research, development, education, and other activities undertaken pursuant to the Program—

(i) among the participating agencies; and

(ii) to the extent practicable, with other Federal agencies not described in paragraph (3)(C), other Federal and private research laboratories, industry, research entities, institutions of higher education, relevant nonprofit organizations, and international partners of the United States;

(D) submit to the Congress an annual report, along with the President's annual budget request, describing the implementation of the Program;

(E) encourage and monitor the efforts of the agencies participating in the Program to allocate the level of resources and management attention necessary to ensure that the strategic plans under subsection (e) are developed and executed effectively and that the objectives of the Program are met; and

(F) consult with academic, State, industry, and other appropriate groups conducting research on and using high-end computing.

(3) The annual report submitted under paragraph (2)(D) shall—

(A) provide a detailed description of the Program Component Areas, including a description of any changes in the definition of or activities under the Program Component Areas from the preceding report, and the reasons for such changes, and a description of Grand Challenges addressed under the Program;

(B) provide a detailed description of the nature and scope of research infrastructure designated as such under the Program;

(C) set forth the relevant programs and activities, for the fiscal year with respect to which the budget submission applies, of each Federal agency and department, including—

(i) the Department of Justice;

(ii) the Department of Commerce;

(iii) the Department of Defense;

(iv) the Department of Education;

(v) the Department of Energy;

(vi) the Department of Health and Human Services;

(vii) the Department of Homeland Security;

(viii) the National Archives and Records Administration;

(ix) the Environmental Protection Agency;

(x) the National Aeronautics and Space Administration;

(xi) the National Science Foundation; and

(xii) such other agencies and departments as the President or the Director considers appropriate;

(D) describe the levels of Federal funding for the fiscal year during which such report is submitted, the levels for the previous fiscal year, and the levels proposed for the fiscal year with respect to which the budget submit-

sion applies, for each Program Component Area and research area supported in accordance with section 5512 of this title;

(E) describe the levels of Federal funding for each participating agency, and for each Program Component Area, for the fiscal year during which such report is submitted, the levels for the previous fiscal year, and the levels proposed for the fiscal year with respect to which the budget submission applies;

(F) include a description of how the objectives for each Program Component Area, and the objectives for activities that involve multiple Program Component Areas, relate to the objectives of the Program identified in the strategic plans required under subsection (e); and

(G) include an analysis of the progress made toward achieving the goals and priorities established for the Program and the extent to which the Program incorporates the recommendations of the advisory committee established under subsection (b).

(b) Advisory committee

(1) The President shall establish an advisory committee on networking and information technology, consisting of geographically dispersed non-Federal members, including representatives of the research, education, and library communities, network and related software providers, and industry representatives in the Program Component Areas, who are specially qualified to provide the Director with advice and information on networking and information technology. Each chair of the advisory committee shall meet the qualifications of committee membership and may be a member of the President's Council of Advisors on Science and Technology. The recommendations of the advisory committee shall be considered in reviewing and revising the Program. The advisory committee shall provide the Director with an independent assessment of—

(A) progress made in implementing the Program;

(B) the need to revise the Program;

(C) the balance between the components of the Program, including funding levels for the Program Component Areas;

(D) whether the research and development undertaken pursuant to the Program is helping to maintain United States leadership in networking and information technology; and

(E) other issues identified by the Director.

(2) In addition to the duties outlined in paragraph (1), the advisory committee shall conduct periodic evaluations of the funding, management, coordination, implementation, and activities of the Program. The advisory committee shall report not less frequently than once every 3 fiscal years to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate on its findings and recommendations.

(3) Section 14 of the Federal Advisory Committee Act shall not apply to the advisory committee established under this subsection.

(c) Office of Management and Budget

(1) Each Federal agency and department participating in the Program shall, as part of its

annual request for appropriations to the Office of Management and Budget, submit a report to the Office of Management and Budget which—

(A) identifies each element of its networking and information technology activities which contributes directly to the Program Component Areas or benefits from the Program; and

(B) states the portion of its request for appropriations that is allocated to each such element.

(2) The Office of Management and Budget shall review each such report in light of the goals, priorities, and agency and departmental responsibilities set forth in the annual report submitted under subsection (a)(2)(D), and shall include, in the President's annual budget estimate, a statement of the portion of each appropriate agency's or department's annual budget estimate relating to its activities undertaken pursuant to the Program.

(d) Periodic reviews

The heads of the participating agencies, working through the National Science and Technology Council and the Program, shall—

(1) periodically assess and update, as appropriate, the structure of the Program, including the Program Component Areas and associated contents, scope, and funding levels, taking into consideration any relevant recommendations of the advisory committee established under subsection (b); and

(2) ensure that such agency's implementation of the Program includes foundational, large-scale, long-term, and interdisciplinary information technology research and development activities, including activities described in section 5512 of this title.

(e) Strategic plans

(1) In general

The heads of the participating agencies, working through the National Science and Technology Council and the Program, shall develop and implement strategic plans to guide—

(A) emerging activities of Federal networking and information technology research and development; and

(B) the activities described in subsection (a)(1).

(2) Updates

The heads of the participating agencies shall update the strategic plans as appropriate.

(3) Contents

Each strategic plan shall—

(A) specify near-term and long-term objectives for the portions of the Program relevant to the strategic plan, the anticipated schedule for achieving the near-term and long-term objectives, and the metrics to be used for assessing progress toward the near-term and long-term objectives;

(B) specify how the near-term and long-term objectives complement research and development areas in which academia and the private sector are actively engaged;

(C) describe how the heads of the participating agencies will support mechanisms for foundational, large-scale, long-term, and

interdisciplinary information technology research and development and for Grand Challenges, including through collaborations—

- (i) across Federal agencies;
- (ii) across Program Component Areas; and
- (iii) with industry, Federal and private research laboratories, research entities, institutions of higher education, relevant nonprofit organizations, and international partners of the United States;

(D) describe how the heads of the participating agencies will foster the rapid transfer of research and development results into new technologies and applications in the national interest, including through cooperation and collaborations with networking and information technology research, development, and technology transition initiatives supported by the States; and

(E) describe how the portions of the Program relevant to the strategic plan will address long-term challenges for which solutions require foundational, large-scale, long-term, and interdisciplinary information technology research and development.

(4) Private sector efforts

In developing, implementing, and updating strategic plans, the heads of the participating agencies, working through the National Science and Technology Council and the Program, shall coordinate with industry, academia, and other interested stakeholders to ensure, to the extent practicable, that the Federal networking and information technology research and development activities carried out under this section do not duplicate the efforts of the private sector.

(5) Recommendations

In developing and updating strategic plans, the heads of the participating agencies shall solicit recommendations and advice from—

- (A) the advisory committee under subsection (b);
- (B) the Committee on Science and relevant subcommittees of the National Science and Technology Council; and
- (C) a wide range of stakeholders, including industry, academia, National Laboratories, and other relevant organizations and institutions.

(f) Reports

The heads of the participating agencies, working through the National Science and Technology Council and the Program, shall submit to the advisory committee, the Committee on Commerce, Science, and Transportation of the Senate, and the Committee on Science, Space, and Technology of the House of Representatives—

- (1) the strategic plans developed under subsection (e)(1); and
- (2) each update under subsection (e)(2).

(Pub. L. 102–194, title I, §101, Dec. 9, 1991, 105 Stat. 1595; Pub. L. 104–66, title I, §1052(k), Dec. 21, 1995, 109 Stat. 719; Pub. L. 105–305, §4, Oct. 28, 1998, 112 Stat. 2921; Pub. L. 110–69, title VII, §7024(a)(1)(B)–(D), Aug. 9, 2007, 121 Stat. 686–689;

Pub. L. 114–329, title I, §105(f), Jan. 6, 2017, 130 Stat. 2978.)

REFERENCES IN TEXT

Section 14 of the Federal Advisory Committee Act, referred to in subsec. (b)(3), is section 14 of Pub. L. 92–463, which is set out in the Appendix to Title 5, Government Organization and Employees.

AMENDMENTS

2017—Pub. L. 114–329, §105(f)(1), substituted “Networking and Information Technology Research and Development Program” for “National High-Performance Computing Program” in section catchline.

Subsec. (a). Pub. L. 114–329, §105(f)(2)(A), substituted “Networking and Information Technology research and development” for “National High-Performance Computing Program” in heading.

Subsec. (a)(1). Pub. L. 114–329, §105(f)(2)(B)(i), substituted “Networking and Information Technology Research and Development Program” for “National High-Performance Computing Program” in introductory provisions.

Subsec. (a)(1)(A). Pub. L. 114–329, §105(f)(2)(B)(ii), substituted “networking and information technology” for “high-performance computing, including networking”.

Subsec. (a)(1)(B). Pub. L. 114–329, §105(f)(2)(B)(iii), substituted “high-end” for “high-performance”.

Subsec. (a)(1)(C). Pub. L. 114–329, §105(f)(2)(B)(iv), substituted “high-end computing, distributed, and networking” for “high-performance computing and networking”.

Subsec. (a)(1)(D). Pub. L. 114–329, §105(f)(2)(B)(v), amended subpar. (D) generally. Prior to amendment, subpar. (D) read as follows: “provide for widely dispersed efforts to increase software availability, productivity, capability, security, portability, and reliability;”.

Subsec. (a)(1)(G). Pub. L. 114–329, §105(f)(2)(B)(iii), substituted “high-end” for “high-performance”.

Subsec. (a)(1)(H). Pub. L. 114–329, §105(f)(2)(B)(vi), inserted “support and guidance” after “provide” and struck out “and” at end.

Subsec. (a)(1)(I). Pub. L. 114–329, §105(f)(2)(B)(vii), substituted “improving the security, reliability, and resilience” for “improving the security” and semicolon for period at end.

Subsec. (a)(1)(J) to (O). Pub. L. 114–329, §105(f)(2)(B)(viii), added subpars. (J) to (O).

Subsec. (a)(2)(A). Pub. L. 114–329, §105(f)(2)(C)(i), amended subpar. (A) generally. Prior to amendment, subpar. (A) read as follows: “establish the goals and priorities for Federal high-performance computing research, development, networking, and other activities;”.

Subsec. (a)(2)(C). Pub. L. 114–329, §105(f)(2)(C)(ii), amended subpar. (C) generally. Prior to amendment, subpar. (C) read as follows: “provide for interagency coordination of Federal high-performance computing research, development, networking, and other activities undertaken pursuant to the Program;”.

Subsec. (a)(2)(E). Pub. L. 114–329, §105(f)(2)(C)(iii), amended subpar. (E) generally. Prior to amendment, subpar. (E) read as follows: “develop and maintain a research, development, and deployment roadmap covering all States and regions for the provision of high-performance computing and networking systems under paragraph (1)(C); and”.

Subsec. (a)(2)(F). Pub. L. 114–329, §105(f)(2)(C)(iv), substituted “high-end” for “high-performance”.

Subsec. (a)(3)(B). Pub. L. 114–329, §105(f)(2)(D)(ii), added subpar. (B). Former subpar. (B) redesignated (C).

Subsec. (a)(3)(C). Pub. L. 114–329, §105(f)(2)(D)(i), redesignated subpar. (B) as (C). Former subpar. (C) redesignated (D).

Subsec. (a)(3)(C)(i). Pub. L. 114–329, §105(f)(2)(D)(iii)(I), amended cl. (i) generally. Prior to amendment, cl. (i) read as follows: “the Department of Agriculture;”.

Subsec. (a)(3)(C)(vii). Pub. L. 114–329, §105(f)(2)(D)(iii)(III), added cl. (vii). Former cl. (vii) redesignated (viii).

Subsec. (a)(3)(C)(viii). Pub. L. 114-329, § 105(f)(2)(D)(iii)(II), (IV), redesignated cl. (vii) as (viii) and amended it generally. Prior to amendment, cl. (viii) read as follows: “the Department of the Interior;”. Former cl. (viii) redesignated (ix).

Subsec. (a)(3)(C)(ix) to (xii). Pub. L. 114-329, § 105(f)(2)(D)(iii)(II), redesignated cls. (viii) to (xi) as (ix) to (xii), respectively.

Subsec. (a)(3)(D). Pub. L. 114-329, § 105(f)(2)(D)(i), (iv), redesignated subpar. (C) as (D) and substituted “is submitted, the levels for the previous fiscal year,” for “is submitted,” and “each Program Component Area and research area supported in accordance with section 5512 of this title;” for “each Program Component Area;”. Former subpar. (D) redesignated (E).

Subsec. (a)(3)(E). Pub. L. 114-329, § 105(f)(2)(D)(i), (v), redesignated subpar. (D) as (E) and amended it generally. Prior to amendment, subpar. (E) read as follows: “describe the levels of Federal funding for each agency and department participating in the Program, and for each Program Component Area, for the fiscal year during which such report is submitted, and the levels proposed for the fiscal year with respect to which the budget submission applies; and”. Former subpar. (E) redesignated (G).

Subsec. (a)(3)(F). Pub. L. 114-329, § 105(f)(2)(D)(vi), added subpar. (F).

Subsec. (a)(3)(G). Pub. L. 114-329, § 105(f)(2)(D)(i), redesignated subpar. (E) as (G).

Subsec. (b)(1). Pub. L. 114-329, § 105(f)(3)(A), in introductory provisions, substituted “networking and information technology” for “high-performance computing” in two places and inserted “Each chair of the advisory committee shall meet the qualifications of committee membership and may be a member of the President’s Council of Advisors on Science and Technology.” before “The recommendations”.

Subsec. (b)(1)(D). Pub. L. 114-329, § 105(f)(3)(B), substituted “networking and information technology” for “high-performance computing, networking technology, and related software”.

Subsec. (b)(2). Pub. L. 114-329, § 105(f)(3)(C), substituted “3 fiscal years” for “2 fiscal years” and “Committee on Science, Space, and Technology” for “Committee on Science and Technology” and struck out at end “The first report shall be due within 1 year after August 9, 2007.”

Subsec. (c)(1)(A). Pub. L. 114-329, § 105(f)(4), substituted “networking and information technology” for “high-performance computing”.

Subsecs. (d) to (f). Pub. L. 114-329, § 105(f)(5), added subsecs. (d) to (f).

2007—Subsec. (a)(1)(A) to (I). Pub. L. 110-69, § 7024(a)(1)(B)(i), added subpars. (A) to (I) and struck out former subpars. (A) and (B) which read as follows:

“(A) establish the goals and priorities for Federal high-performance computing research, development, networking, and other activities; and

“(B) provide for interagency coordination of Federal high-performance computing research, development, networking, and other activities undertaken pursuant to the Program.”

Subsec. (a)(2). Pub. L. 110-69, § 7024(a)(1)(B)(ii), redesignated par. (3) as (2) and struck out former par. (2) which provided additional requirements for the National High-Performance Computing Program.

Subsec. (a)(2)(A) to (F). Pub. L. 110-69, § 7024(a)(1)(B)(iii), added subpars. (A) to (C) and (E), redesignated former subpars. (A) and (C) as (D) and (F), respectively, and struck out former subpar. (B) which read as follows: “provide for interagency coordination of the Program; and”.

Subsec. (a)(3). Pub. L. 110-69, § 7024(a)(1)(B)(iv)(I), substituted “paragraph (2)(D)” for “paragraph (3)(A)” in introductory provisions.

Pub. L. 110-69, § 7024(a)(1)(B)(ii), redesignated par. (4) as (3). Former par. (3) redesignated (2).

Subsec. (a)(3)(A). Pub. L. 110-69, § 7024(a)(1)(B)(iv)(II), amended subpar. (A) generally. Prior to amendment, subpar. (A) read as follows: “include a detailed descrip-

tion of the goals and priorities established by the President for the Program;”.

Subsec. (a)(3)(C). Pub. L. 110-69, § 7024(a)(1)(B)(iv)(III), substituted “each Program Component Area” for “specific activities, including education, research, hardware and software development, and support for the establishment of the Network”.

Subsec. (a)(3)(D). Pub. L. 110-69, § 7024(a)(1)(B)(iv)(IV), (V), inserted “, and for each Program Component Area,” after “participating in the Program” and “and” after “applies;”.

Subsec. (a)(3)(E), (F). Pub. L. 110-69, § 7024(a)(1)(B)(iv)(VI), (VII), redesignated subpar. (F) as (E), inserted “and the extent to which the Program incorporates the recommendations of the advisory committee established under subsection (b)” after “for the Program”, and struck out former subpar. (E) which read as follows: “include the report of the Secretary of Energy required by section 5523(d) of this title; and”.

Subsec. (b). Pub. L. 110-69, § 7024(a)(1)(C), added subsec. (b) and struck out heading and text of former subsec. (b). Text consisted of pars. (1) to (5) which contained provisions similar to those now contained in par. (1).

Subsec. (c)(1)(A). Pub. L. 110-69, § 7024(a)(1)(D)(i), substituted “Program Component Areas or” for “Program or”.

Subsec. (c)(2). Pub. L. 110-69, § 7024(a)(1)(D)(ii), substituted “subsection (a)(2)(D)” for “subsection (a)(3)(A)”.

1998—Subsec. (a)(2)(A), (B). Pub. L. 105-305, § 4(a), amended subpars. (A) and (B) generally. Prior to amendment, subpars. read as follows:

“(A) provide for the establishment of policies for management and access to the Network;

“(B) provide for oversight of the operation and evolution of the Network;”.

Subsec. (b). Pub. L. 105-305, § 4(b), struck out “High-performance computing” before “advisory committee” in heading.

1995—Subsec. (a)(4)(D) to (F). Pub. L. 104-66 struck out “and” at end of subpar. (D), added subpar. (E), and redesignated former subpar. (E) as (F).

TERMINATION OF ADVISORY COMMITTEES

Advisory committees established after Jan. 5, 1973, to terminate not later than the expiration of the 2-year period beginning on the date of their establishment, unless, in the case of a committee established by the President or an officer of the Federal Government, such committee is renewed by appropriate action prior to the expiration of such 2-year period, or in the case of a committee established by the Congress, its duration is otherwise provided for by law. See section 14 of Pub. L. 92-463, Oct. 6, 1972, 86 Stat. 776, set out in the Appendix to Title 5, Government Organization and Employees.

DELEGATION OF FUNCTIONS

President’s Council of Advisors on Science and Technology to serve as the advisory committee identified in section 5511(b) of this title and to be known as the President’s Innovation and Technology Advisory Committee when so serving, see section 3(a)(iii) of Ex. Ord. No. 13895, set out as a note under section 6601 of Title 42, The Public Health and Welfare.

EX. ORD. NO. 13035. PRESIDENT’S INFORMATION TECHNOLOGY ADVISORY COMMITTEE

Ex. Ord. No. 13035, Feb. 11, 1997, 62 F.R. 7131, as amended by Ex. Ord. No. 13092, July 24, 1998, 63 F.R. 40167; Ex. Ord. No. 13113, Feb. 10, 1999, 64 F.R. 7489; Ex. Ord. No. 13200, Feb. 11, 2001, 66 F.R. 10183; Ex. Ord. No. 13215, May 31, 2001, 66 F.R. 30285; Ex. Ord. No. 13305, May 28, 2003, 68 F.R. 32323, provided:

By the authority vested in me as President by the Constitution and the laws of the United States of America, including the High-Performance Computing Act of 1991 (Public Law 102-194) (“Act”) [15 U.S.C. 5501

et seq.], as amended by the Next Generation Internet Research Act of 1998 (Public Law 105-305) (“Research Act”) [see Short Title of 1998 Amendment note set out under section 5501 of this title], and in order to establish an advisory committee on high-performance computing and communications, Information Technology [sic], and the Next Generation Internet, it is hereby ordered as follows:

SECTION 1. *Establishment.* There is established the “President’s Information Technology Advisory Committee” (“Committee”). The Committee shall consist of not more than 30 nonfederal members appointed by the President, including representatives of the research, education, and library communities, network providers, and representatives from critical industries. Members appointed prior to June 1, 2001, shall serve until December 1, 2001, unless reappointed by the President. Members appointed or reappointed on or after June 1, 2001, shall serve for no more than 2 years from the date of their appointment, unless their period of service is extended by the President. The President shall designate two co-chairs from among the members of the Committee. A co-chair may serve for a term of 2 years or until the end of his or her service as a member of the Committee, whichever is the shorter period.

SEC. 2. *Functions.* (a) The Committee shall provide the National Science and Technology Council (NSTC), through the Director of the Office of Science and Technology Policy (“Director”), with advice and information on high-performance computing and communications, information technology, and the Next Generation Internet. The Committee shall provide an independent assessment of:

- (1) progress made in implementing the High-Performance Computing and Communications (HPCC) Program;
- (2) progress in designing and implementing the Next Generation Internet initiative;
- (3) the need to revise the HPCC Program;
- (4) balance among components of the HPCC Program;
- (5) whether the research and development undertaken pursuant to the HPCC Program is helping to maintain United States leadership in advanced computing and communications technologies and their applications; and
- (6) other issues as specified by the Director.

(b) The Committee shall carry out its responsibilities under the Research Act in the manner described in the Research Act.

SEC. 3. *Administration.* To the extent permitted by law and subject to the availability of appropriations, the Department of Defense shall provide the financial and administrative support for the Committee. Further, the Director of the National Coordination Office for Computing Information, and Communications (“Director of the NCO”) shall provide such coordination and technical assistance to the Committee as the co-chairs of the Committee may request.

(a) The heads of executive agencies shall, to the extent permitted by law, provide to the Committee such information as it may require for the purpose of carrying out its functions.

(b) The co-chairs may, from time to time, invite experts to submit information to the Committee and may form subcommittees or working groups within the Committee to review specific issues.

(c) Members of the Committee shall serve without compensation but shall be allowed travel expenses, including per diem in lieu of subsistence, as authorized by law for persons serving intermittently in the Government service (5 U.S.C. 5701–5707).

SEC. 4. *General.* (a) Notwithstanding any other Executive order, the functions of the President under the Federal Advisory Committee Act, as amended [5 U.S.C. App.], except that of reporting to the Congress, that are applicable to the Committee shall be performed by the Director of the NCO in accordance with guidelines that have been issued by the Administrator of General Services.

(b) The Committee shall terminate June 1, 2005, unless extended by the President prior to such date.

§ 5512. Grand Challenges in areas of national importance

(a) In general

The Program shall encourage the participating agencies to support foundational, large-scale, long-term, interdisciplinary, and inter-agency information technology research and development activities in networking and information technology directed toward agency mission areas that have the potential for significant contributions to national economic competitiveness and for other significant societal benefits. Such activities, ranging from basic research to the demonstration of technical solutions, shall be designed to advance the development of fundamental discoveries. The advisory committee established under section 5511(b) of this title shall make recommendations to the Program for candidate research and development areas for support under this section.

(b) Characteristics

(1) In general

Research and development activities under this section shall—

(A) include projects selected on the basis of applications for support through a competitive, merit-based process;

(B) to the extent practicable, involve collaborations among researchers in institutions of higher education and industry, and may involve nonprofit research institutions and Federal laboratories, as appropriate;

(C) to the extent practicable, leverage Federal investments through collaboration with related State and private sector initiatives; and

(D) include a plan for fostering the transfer of research discoveries and the results of technology demonstration activities, including from institutions of higher education and Federal laboratories, to industry for commercial development.

(2) Cost-sharing

In selecting applications for support, the agencies may give special consideration to projects that include cost sharing from non-Federal sources.

(Pub. L. 102–194, title I, §102, as added Pub. L. 114–329, title I, §105(i), Jan. 6, 2017, 130 Stat. 2982.)

PRIOR PROVISIONS

A prior section 5512, Pub. L. 102–194, title I, §102, Dec. 9, 1991, 105 Stat. 1598, related to the National Research and Education Network, prior to repeal by Pub. L. 114–329, title I, §105(g), Jan. 6, 2017, 130 Stat. 2982.

§ 5513. Repealed. Pub. L. 114–329, title I, § 105(h), Jan. 6, 2017, 130 Stat. 2982

Section, Pub. L. 102–194, title I, §103, as added Pub. L. 105–305, § 5, Oct. 28, 1998, 112 Stat. 2921; amended Pub. L. 106–65, div. A, title X, §1067(20), Oct. 5, 1999, 113 Stat. 775, related to the Next Generation Internet program.

SUBCHAPTER II—AGENCY ACTIVITIES

§ 5521. National Science Foundation activities

As part of the Program described in subchapter I—